IN THE CLAIMS

Applicant presents a new claim set showing amended claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please amend claim 8 as shown below.

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1. (Original) A method of operating a computer system to design an application specific processor (ASP) comprising:

defining a set of peripherals for the ASP which are responsive to stimuli and which communicate with a processor;

generating for each peripheral an input file which defines the functional attributes of that peripheral in a high level language with an input data structure;

entering the input file into the computer system and operating a modelling tool loaded on the computer system to generate from the input file a register definition file by allocating specific elements of the input data structure to predefined sectors of a register definition table; and

using the register definition file to create in silicon the registers of the ASP.

2. (Original) A method according to claim 1, wherein each input file comprises a data structure which defines for each of a set of registers the name of an element in the register, the bit length of the element, the functional status of the element and the function of the element.

3. (Original) The method according to claim 1, wherein each register definition table includes at least predefined sectors for the bit location within a register of an element, the name of the element, the function of the element and the functional status of the element.

4. (Original) A method according to claim 1, wherein the register definition table includes the word location of the register within a memory map for access during simulation of the ASP.

5. (Previously presented) A computer system which comprises a processor and a memory, the memory holding a program representing a modelling tool for use in designing an application specific processor (ASP), wherein the computer system comprises an input means for receiving a plurality of input files, each input file defining the functional attributes of a peripheral for the ASP in a high level language within an input data structure;

the processor being operable to execute the program representing the modelling tool to generate from the input file a register definition file by allocating specific elements of the input data structure to predefined sectors of a register definition table; and

wherein the computer system further comprises an output means for outputting the register definition file in a manner which is usable to create in silicon the registers of the ASP.

6. (Original) A computer system according to claim 5, wherein the input means comprises means for receiving a physical recording device holding the input file for each peripheral.

7. (Original) A computer system according to claim 5, wherein the output means comprises means for loading the register definition file onto a physical recording device.

8. (Currently amended) A computer program product stored on a computer readable medium and comprising software code portions operable when executed by a computer to read an input file which defines in an input ~~date~~ data structure the functional attributes of a peripheral for an application specific processor in a high level language, and to generate from that input file a register definition file, the software code portions including a code portion for allocating specific elements of the input data structure to predefined sectors of a register definition table for each of a plurality of registers.

9. (Previously presented) A register definition file stored on a computer readable medium and comprising a plurality of register definition tables, each table including at least predefined sectors for the bit location within a register of an element, the name of the element,

the function of the element and the functional status of the element, and each table further including the word location of the register within a memory map, wherein when the computer readable medium is loaded into a computer for simulating an Application Specific Processor, said register definition tables are accessed based on said word location for simulation of said registers.